```
Structure search iteration limits have been increased.  See HELP SLIMITS
for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
 * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'REGISTRY' AT 21:57:47 ON 18 AUG 2005
FILE 'REGISTRY' ENTERED AT 21:57:47 ON 18 AUG 2005
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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       3.44     228.74

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                         ENTRY    SESSION
CA SUBSCRIBER PRICE .                                     0.00      -6.57

=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       3.44     228.74

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                         ENTRY    SESSION
CA SUBSCRIBER PRICE                                       0.00      -6.57

FILE 'REGISTRY' ENTERED AT 21:57:57 ON 18 AUG 2005
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STRUCTURE FILE UPDATES:   17 AUG 2005  HIGHEST RN 860672-09-9
DICTIONARY FILE UPDATES:  17 AUG 2005  HIGHEST RN 860672-09-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

*********************************************************************
*                                                                   *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,   *
* effective March 20, 2005.  A new display format, IDERL, is now    *
* available and contains the CA role and document type information. *
*                                                                   *
*********************************************************************

Structure search iteration limits have been increased.  See HELP SLIMITS
for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
```

```
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
L6      STRUCTURE UPLOADED

=> s l6
SAMPLE SEARCH INITIATED 22:02:59 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -   4080 TO ITERATE

 49.0% PROCESSED     2000 ITERATIONS                                1 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:         77770 TO    85430
PROJECTED ANSWERS:                1 TO      125

L7            1 SEA SSS SAM L6

=> s l6 sss full
FULL SEARCH INITIATED 22:03:08 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -  79529 TO ITERATE

100.0% PROCESSED    79529 ITERATIONS                               25 ANSWERS
SEARCH TIME: 00.00.03

L8           25 SEA SSS FUL L6

=> file caplus
COST IN U.S. DOLLARS                              SINCE FILE      TOTAL
                                                     ENTRY    SESSION
FULL ESTIMATED COST                                 164.77     393.51

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)        SINCE FILE      TOTAL
                                                     ENTRY    SESSION
CA SUBSCRIBER PRICE                                   0.00      -6.57

FILE 'CAPLUS' ENTERED AT 22:03:18 ON 18 AUG 2005
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FILE COVERS 1907 - 18 Aug 2005  VOL 143 ISS 8
FILE LAST UPDATED: 17 Aug 2005  (20050817/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.
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=> s l8
L9            1 L8

=> d l9 bib abs hitstr

L9   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2005 ACS on STN
Full Text
AN   2004:467694  CAPLUS
DN   141:23552
TI   Preparation of 1-[3-[4-(pyridinyl)-1-piperazinyl]phenyl]ethyl amides as
     openers or activators of KCNQ potassium channels
IN   Wu, Yong-Jin; Sun, Li-Qiang; Chen, Jie
PA   Bristol-Myers Squibb Company, USA
SO   PCT Int. Appl., 26 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     ---------------     ----   --------    --------------------    --------
PI   WO 2004047745        A2     20040610    WO 2003-US37350         20031121
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO,
             NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
             TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
             BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
             ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
             TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
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PRAI US 2002-428354P      P      20021122
OS   MARPAT 141:23552
GI
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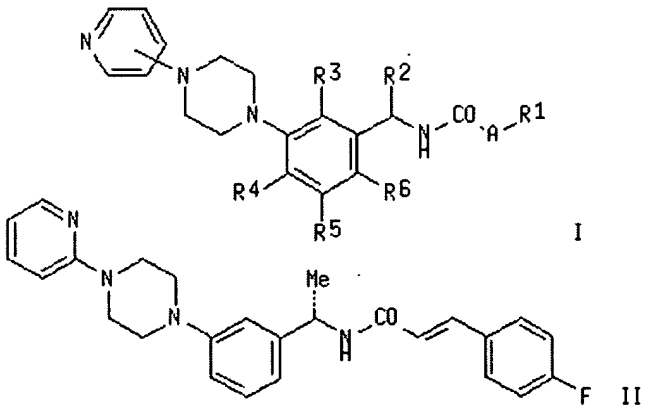


I

II

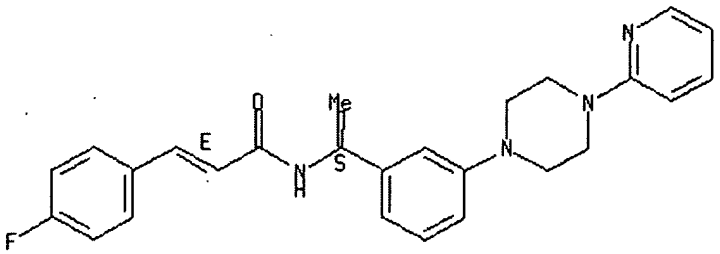
AB   Amides, such as I [R1 = unsubstituted- or substituted-Ph, pyridinyl, 3-quinolinyl, cycloalkyl, thienyl, furanyl; R2 = CF3, CH2OH, alkyl; R3, R4, R5, R6 = H, F; A = -CH:CH-, -(CH2)n-; n = 0, 1, 2, 3], were prepd. for therapeutic use as openers or activators of KCNQ potassium channels and

were claimed for use in the treatment of migraine, bipolar disorders, epilepsy, acute and chronic pain, neuropathic pain, convulsions, mania, depression, anxiety, and neurodegenerative disorders. Thus, amide II was prepd. via an amidation reaction of 4-fluorocinnamic acid with (S)-1-[3-[4-(2-pyridyl)piperazin-1-yl]phenyl]ethylamine using EDC, DMAP and Et3N in CH2Cl2 with 60% yield. The prepd. amides were assayed for K+ channel activity using a thallium flux assay.

IT **700856-43-5P 700856-46-8P 700856-49-1P**
700856-52-6P 700856-55-9P 700856-58-2P
700856-61-7P 700856-64-0P 700856-67-3P
700856-70-8P 700856-73-1P 700856-76-4P
700856-79-7P 700856-82-2P 700856-84-4P
700856-87-7P 700856-89-9P 700856-92-4P
700856-94-6P 700856-97-9P 700857-00-7P
700857-03-0P 700857-06-3P 700857-09-6P
700857-12-1P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 1-[3-[4-(pyridinyl)-1-piperazinyl]phenyl]ethyl amides for use in pharmaceutical compns. as openers or activators of KCNQ potassium channels)

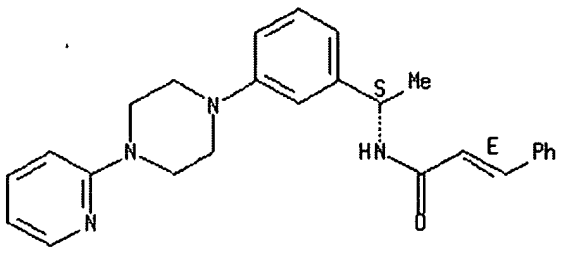
RN 700856-43-5 CAPLUS
CN 2-Propenamide, 3-(4-fluorophenyl)-N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]-, (2E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 700856-46-8 CAPLUS
CN 2-Propenamide, 3-phenyl-N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]-, (2E)- (9CI) (CA INDEX NAME)

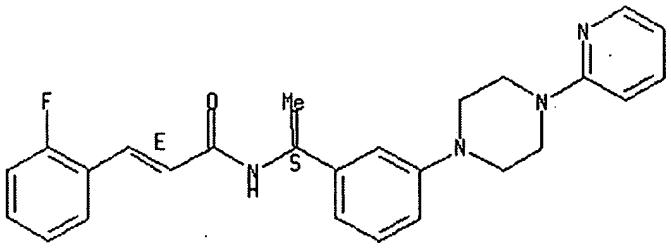
Absolute stereochemistry.
Double bond geometry as shown.



RN 700856-49-1 CAPLUS
CN 2-Propenamide, 3-(2-fluorophenyl)-N-[(1S)-1-[3-[4-(2-pyridinyl)-1-

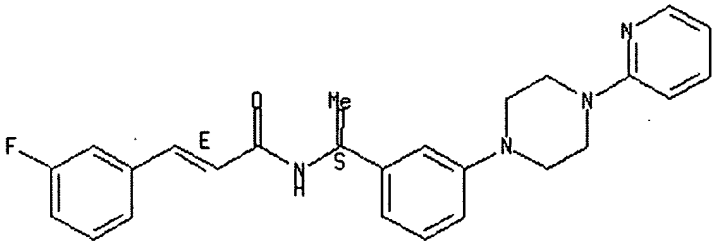
piperazinyl]phenyl]ethyl]-, (2E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



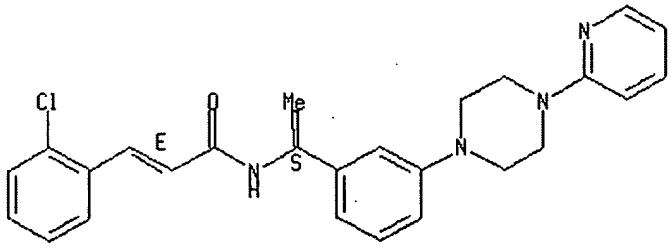
RN 700856-52-6 CAPLUS
CN 2-Propenamide, 3-(3-fluorophenyl)-N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]-, (2E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



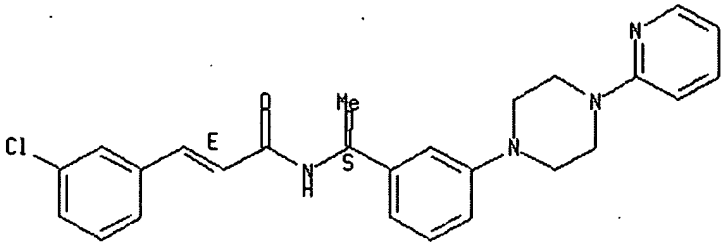
RN 700856-55-9 CAPLUS
CN 2-Propenamide, 3-(2-chlorophenyl)-N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]-, (2E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



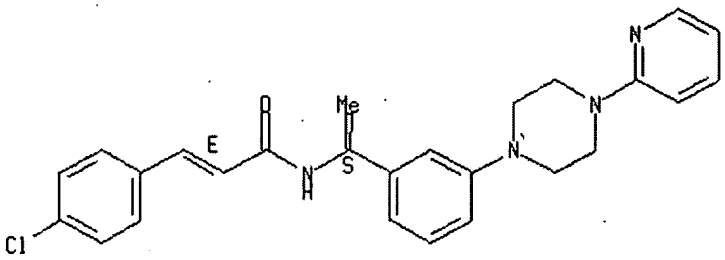
RN 700856-58-2 CAPLUS
CN 2-Propenamide, 3-(3-chlorophenyl)-N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]-, (2E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



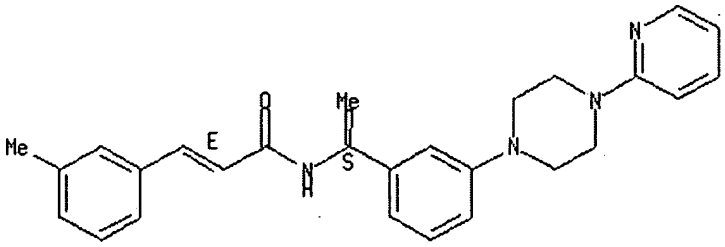
RN 700856-61-7 CAPLUS
CN 2-Propenamide, 3-(4-chlorophenyl)-N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]-, (2E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



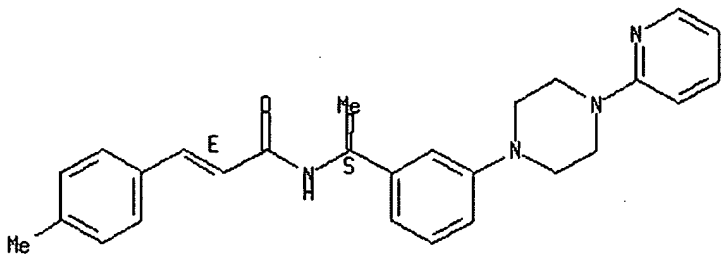
RN 700856-64-0 CAPLUS
CN 2-Propenamide, 3-(3-methylphenyl)-N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]-, (2E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



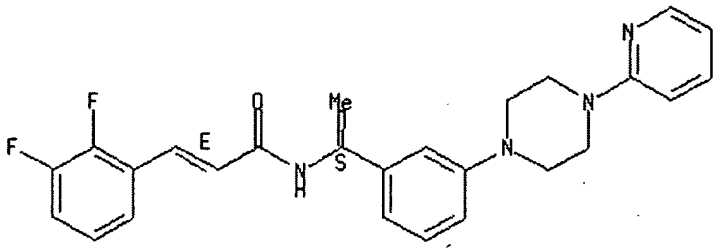
RN 700856-67-3 CAPLUS
CN 2-Propenamide, 3-(4-methylphenyl)-N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]-, (2E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



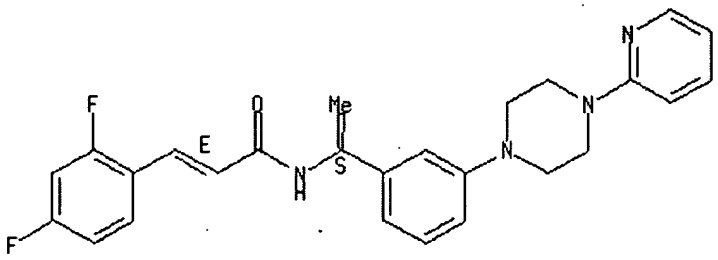
RN 700856-70-8 CAPLUS
CN 2-Propenamide, 3-(2,3-difluorophenyl)-N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]-, (2E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



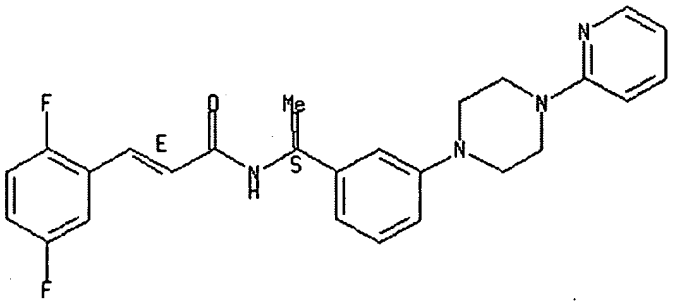
RN 700856-73-1 CAPLUS
CN 2-Propenamide, 3-(2,4-difluorophenyl)-N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]-, (2E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



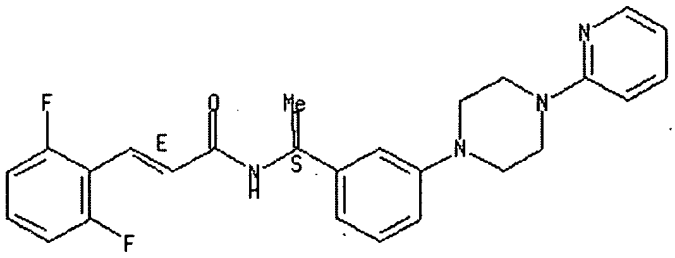
RN 700856-76-4 CAPLUS
CN 2-Propenamide, 3-(2,5-difluorophenyl)-N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]-, (2E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



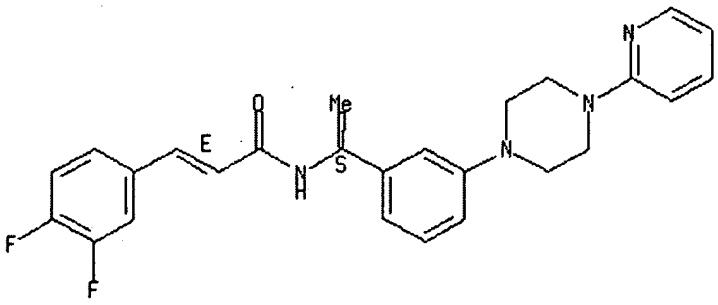
RN 700856-79-7 CAPLUS
CN 2-Propenamide, 3-(2,6-difluorophenyl)-N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]-, (2E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



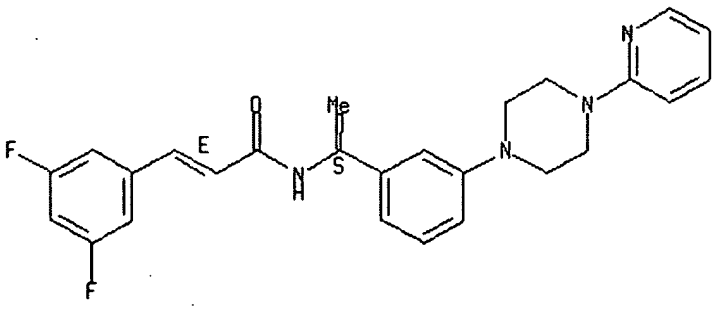
RN 700856-82-2 CAPLUS
CN 2-Propenamide, 3-(3,4-difluorophenyl)-N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]-, (2E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



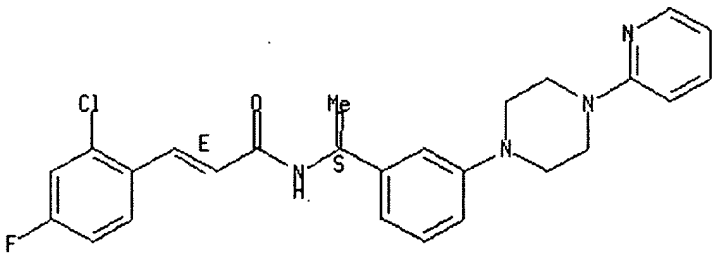
RN 700856-84-4 CAPLUS
CN 2-Propenamide, 3-(3,5-difluorophenyl)-N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]-, (2E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



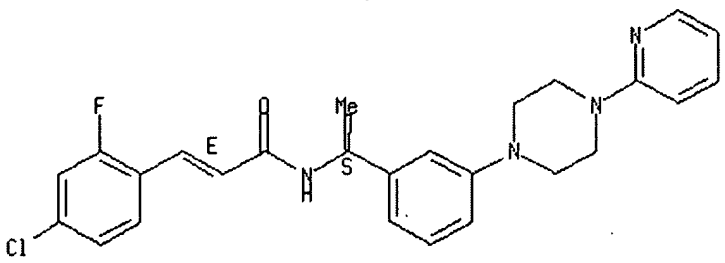
RN 700856-87-7 CAPLUS
CN 2-Propenamide, 3-(2-chloro-4-fluorophenyl)-N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]-, (2E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



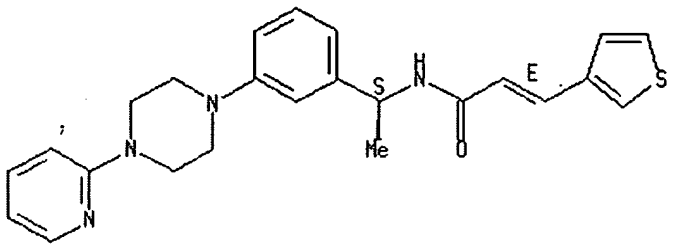
RN 700856-89-9 CAPLUS
CN 2-Propenamide, 3-(4-chloro-2-fluorophenyl)-N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]-, (2E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



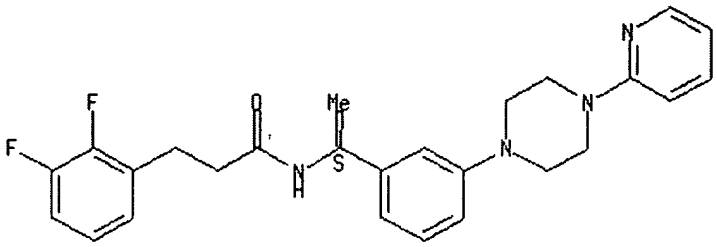
RN 700856-92-4 CAPLUS
CN 2-Propenamide, N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]-3-(3-thienyl)-, (2E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



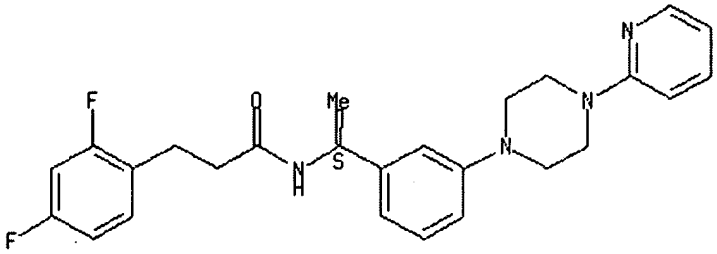
RN 700856-94-6 CAPLUS
CN Benzenepropanamide, 2,3-difluoro-N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



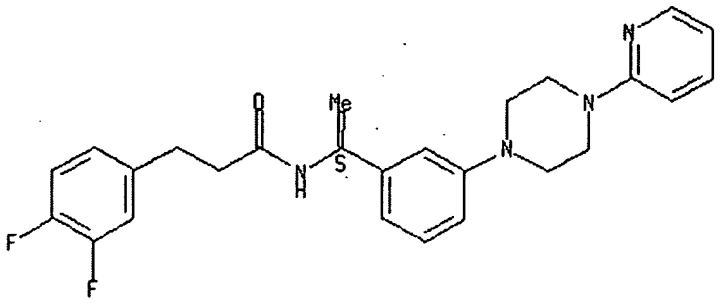
RN 700856-97-9 CAPLUS
CN Benzenepropanamide, 2,4-difluoro-N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



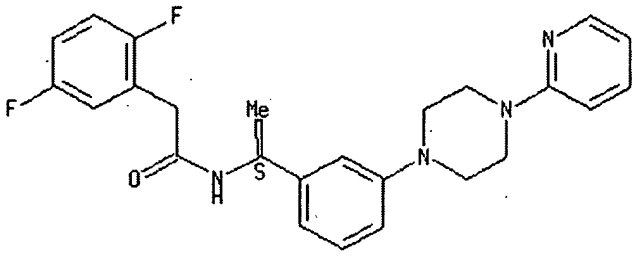
RN 700857-00-7 CAPLUS
CN Benzenepropanamide, 3,4-difluoro-N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



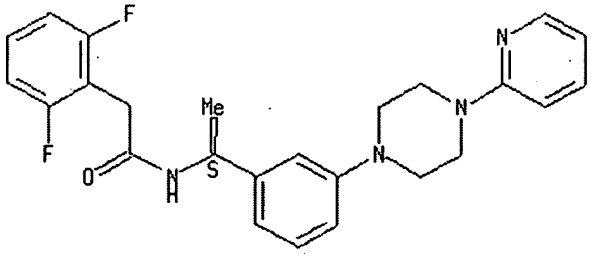
RN 700857-03-0 CAPLUS
CN Benzeneacetamide, 2,5-difluoro-N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



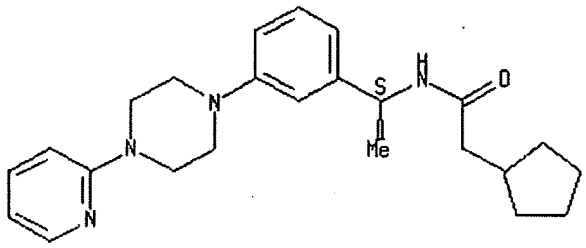
RN 700857-06-3 CAPLUS
CN Benzeneacetamide, 2,6-difluoro-N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



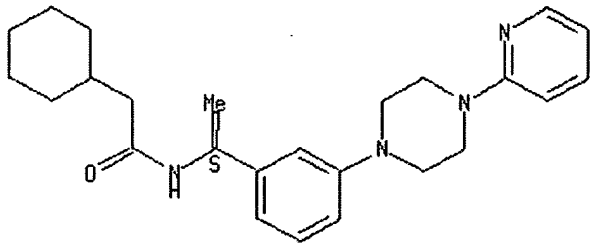
RN 700857-09-6 CAPLUS
CN Cyclopentaneacetamide, N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 700857-12-1 CAPLUS
CN Cyclohexaneacetamide, N-[(1S)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]phenyl]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> file caold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	5.39	398.90

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.73	-7.30

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     (FILE 'HOME' ENTERED AT 21:32:38 ON 18 AUG 2005)

     FILE 'REGISTRY' ENTERED AT 21:32:59 ON 18 AUG 2005
L1                STRUCTURE UPLOADED
L2             3 S L1
L3            61 S L1 SSS FULL

     FILE 'CAPLUS' ENTERED AT 21:42:22 ON 18 AUG 2005
L4             9 S L3

     FILE 'CAOLD' ENTERED AT 21:43:09 ON 18 AUG 2005
L5             0 S L3

     FILE 'REGISTRY' ENTERED AT 21:52:35 ON 18 AUG 2005

     FILE 'REGISTRY' ENTERED AT 21:57:57 ON 18 AUG 2005
L6                STRUCTURE UPLOADED
L7             1 S L6
L8            25 S L6 SSS FULL

     FILE 'CAPLUS' ENTERED AT 22:03:18 ON 18 AUG 2005
L9             1 S L8

     FILE 'CAOLD' ENTERED AT 22:03:48 ON 18 AUG 2005

=> s l8
L10            0 L8

=>
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